Data Source: EM CDB Report Number: GEN-01b

Operations/Field Office: Oak Ridge

Print Date: 3/9/2000

Site Summary Level: Oak Ridge Reservation HQ ID: 0090

Project OR-221 / Y-12 Remedial Action

General Project Information

Project Description Narratives

Purpose, Scope, and Technical Approach:

The Y-12 Project encompasses remedial actions in both the Upper East Fork Poplar Creek (UEFPC) Watershed as well as the Bear Creek Valley (BCV) Watershed. The UEFPC Watershed is the watershed of the main Y-12 Plant area. This industrial plant area has a complicated operational history and a complex environmental setting resulting in multiple contaminant sources and commingled groundwater and surface water contamination. The BCV Watershed is the watershed west of the Y-12 Plant area. Numerous waste disposal areas are located in this watershed and these disposal areas were predominately used to dispose of both liquid and solid wastes from operations conducted at the Y-12 Plant. The scope of this project is to provide and implement CERCLA Record of Decision (ROD) which comply with the requirements of the FFA, are acceptable to all stakeholders, and are protective of public health and the environment. The Y-12 Project consists of four RODs, three early actions and twelve remedial action subprojects. A brief description of each subproject follows.

RODs

UEFPC ROD Phases 1 and 2 - The objective of these two subprojects is to complete remedy selection and documentation of the selected remedy pursuant to CERCLA for Phase 1 and Phase 2 remedial actions in the characterization area. The Phase 1 ROD focuses on mercury source control actions and evaluation of natural attenuation of groundwater. The Phase 2 ROD addresses soil remedial actions for worker protection; surface water actions including monitoring and other mercury source actions, as necessary; additional UEFPC sediment removal; building D&D; and additional groundwater actions. The work will entail the planning and writing of documents including the FS, Phase 1 PP, Phase 2 PP, Phase 2 PP Support Document, Phase 1 ROD, Phase 2 ROD, Phase 1 RDWP and Phase 2 RDWP.

BCV ROD Phases 1 and 2 - The objective of these two subprojects is to complete remedy selection and documentation of the selected remedy pursuant to CERCLA for Phase 1 and Phase 2 remedial actions in the watershed. The Phase 1 documents will provide a basis for all remedial actions in BCV, with the first action being implemented within 15 months of regulator approval of the Phase 1 ROD. The Phase 1 ROD will establish initial remedial goals for all media, while the Phase 2 ROD will finalize the goals for the watershed. The Phase 1 and Phase 2 documents to be prepared include a PP for each phase, a Phase 1 and Phase 2 ROD and a Phase 1 and Phase 2 ROD. The Phase 2 associated subprojects include the BCV Burial Grounds and the BCV Groundwater. Final groundwater goals will be established in the Phase 2 ROD.

Chestnut Ridge ROD - The objective of this subproject is to complete the documentation and remedy selection pursuant to CERCLA for the Chestnut Ridge area. The work will include the planning and writing of documents including the information assessment report, PP, ROD and RDWP. The areas addressed in this ROD include the Chestnut Ridge Security Pits, Chestnut Ridge Sediment Disposal Basin, Rodgers Quarry/Lower McCoy Branch, East Chestnut Ridge Waste Pile and Arboretum Spring.

Clinch River/Poplar Creek Surface Water ROD - The objective of this subproject is to complete the documentation and remedy selection pursuant to CERCLA for the Clinch River/Poplar Creek and Lower Watts Bar Surface Water. The work will entail supplementing the Remediation Effectiveness Report and the planning and writing of the ROD.

Early Actions

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Project OR-221 / Y-12 Remedial Action

Project Description Narratives

UEFPC West End Mercury Area Pre-design Study - The objective of this subproject is to collect data to support the design and implementation of actions to hydraulically isolate surface and groundwater from contaminated soils near Buildings 9201-4, 9201-5, and 9204-4. Two monitoring wells will be installed and a pump test performed to ascertain the effects of old filled-in drainage channels on the flow regime. This information will be used to determine the feasibility of a horizontal interceptor well in the area.

BCV S-3 Ponds - The objective of this subproject is to capture and treat contaminated groundwater so that risk to human health and the environment may be reduced to levels consistent with the goals of the BCV Phase 1 ROD. This will be accomplished through a funnel and gate system and a French drain system.

UEFPC East End VOC Plumes - The objective of this subproject is to control the migration of groundwater beyond the Y-12 Plant Boundary to protect the offsite groundwater user and minimize offsite risk. The East End Volatile Organic Compound (VOC) Plumes subproject will install a pump and treat system to mitigate the migration of the plume offsite and will implement in-situ bioremediation near the source area to enhance the action by shortening the period of operation for the pump and treat system.

Remedial Actions

BCV Groundwater - The objective of this subproject is to implement the remediation decision for groundwater based on the BCV Phase 2 ROD.

UEFPC Groundwater - The scope of this subproject is to address groundwater within the UEFPC watershed. The East End VOC Plumes subproject will address the offsite migration of the plume. The remainder of the UEFPC groundwater will be addressed as prescribed in the UEFPC Phase 1 and Phase 2 RODs. Groundwater will be addressed through monitoring coupled with natural attenuation. Under Phase 1, groundwater use restrictions will be continued for the Union Valley area. The Phase 2 ROD will require reevaluation of the groundwater monitoring requirements implemented in Phase 1 and will evaluate surface water monitoring requirements.

Reduction of Mercury in Plant Effluents - The objective of this subproject is to comply with the limits for mercury concentrations in UEFPC required by the Y-12 NPDES permit by eliminating, mitigating, or capturing for treatment mercury contaminated effluent. As sources are identified, corrective actions will be planned and implemented.

BCV Boneyard/Burnyard - The objective of this subproject is the protection of human health and the environment through the reduction of the uranium flux entering Bear Creek from this site. This will be accomplished via excavation and/or hydraulic isolation of the waste. Additionally, the objective for the Oil Landfarm Soil Containment Pad, a part of this subproject, involves final disposition of the soils stored at the facility and the demolition of the temporary storage building and concrete pad.

BCV Burial Grounds - The objective of this subproject is to implement long-term in-place management and monitoring of the waste to prevent future releases of contamination to the environment. Near-term objectives include pilot-scale deployment of in-situ treatment and isolation technologies for evaluation to meet long-term management goals.

The BCV White Wing Scrap Yard - The objective of this subproject is to complete excavation activities so that the area will be consistent with land use designations that are detailed in the BCV Phase 1 ROD.

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Project OR-221 / Y-12 Remedial Action

Project Description Narratives

UEFPC Soils Phase 1 and 2 - The objective of this subproject is to design and implement excavation of contaminated soils in the watershed. The excavations will remove unacceptable risk to DOE workers (in absence of RadCon monitoring) and uncontrolled industrial area workers.

UEFPC In-situ Remediation - The objective of this subproject is to design and implement in-situ remediation of contaminated soils in the watershed, specifically at the Line Yard and Building 9201-2. The action is forecasted to be identified in the UEFPC Phase 1 ROD.

UEFPC Sediments Phases 1 and 2 - The objective of these two subprojects is to design and implement excavation of contaminated sediment in UEPFC. The Phase 1 excavation would address sediments from the North/South Pipe to approximately Outfall 109. The Phase 2 excavation would address sediments in Lake Reality and UEFPC near Lake Reality.

UEFPC West End Mercury Area Remediation - The objective of this subproject is to design and implement actions to hydraulically isolate surface and groundwater from contaminated soils near Buildings 9201-4, 9201-5, and 9204-4. These hydraulic isolation actions would include a horizontal interceptor well, infiltration and runoff control caps, and repair of the storm sewer.

Chestnut Ridge Soils Remediation - The objective of this subproject is to implement the selected remedies outlined in the Chestnut Ridge ROD. These remedies are forecasted to include; characterization, excavation and disposal of soils and construction debris from Temporary Storage Area; characterization, excavation, treatment and disposal of soils and roofing debris from the East Chestnut Ridge Waste Pile; and monitored natural attenuation of the groundwater contamination from the Chestnut Ridge Security Pits and Arboretum Spring.

BCV DARA/SSF - The objective of this subproject is to remove, treat as necessary, and dispose of soils stored in the Disposal Area Remedial Action (DARA) Solids Storage Facility (SSF) in accordance with the BCV Phase 1 ROD. The subproject also includes demolition of the facility when emptied.

Project Drivers:

CERCLA is the statutory driver for each of the above subprojects.

Project Status in FY 2006:

UEFPC ROD Phases 1 and 2 - The entire Phase 1 ROD is scheduled to be complete prior to the end of FY 2001 and includes a Feasibility Study, Proposed Plan, Record of Decision, and Remedial Design Work Plan. For the Phase 2 ROD, the Proposed Plan is scheduled to be complete by the end of FY 2006. The Record of Decision and the Remedial Design Work Plan will begin in FY 2006 and will be completed in FY 2007.

BCV ROD Phases 1 and 2 - The Phase 1 ROD is scheduled to be complete prior to the end of FY 2001 and includes a Record of Decision, Remedial Design Work Plan, and a Wetland Mitigation Plan. The Phase 2 ROD is scheduled to be complete prior to the end of FY 2006 and includes a Proposed Plan, Record of Decision, and Remedial Design Work Plan.

Chestnut Ridge ROD - This subproject will be complete prior to FY 2006 and includes a Information Assessment Report, Proposed Plan, Record of Decision, and Remedial Design Work Plan.

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Project OR-221 / Y-12 Remedial Action

Project Description Narratives

Clinch River/Poplar Creek Surface Water ROD - The Information Assessment Report will be complete prior to the end of FY 2006.

UEFPC West End Mercury Area Pre-design Study - This subproject will be complete prior to FY 2006 and includes a Pre-Design Study.

BCV S-3 Ponds - This subproject will be complete prior to FY 2006 and includes an Early Action for Pathway 1 & 2, and Remedial Action for Pathway 1, 2 & 3.

UEPFC East End VOC Plumes - This subproject will be complete prior to FY 2006 and includes both a Pump & Treat and a Bio-Remediation removal action.

BCV Groundwater - This subproject will be complete prior to the end of FY 2006 and include a Remedial Design Report/Remedial Action Work Plan.

UEFPC Groundwater - The RDR and RAWP will be complete prior to FY 2006. The remedial action will be started in FY 2002 and continue through FY 2009.

Reduction of Mercury in Plant Effluents - This subproject will be complete prior to FY 2006 and includes an Abatement Report, Sampling & Analysis, Soils Technical Demonstration, and Bank Stabilization.

BCV Boneyard/Burnyard - This subproject will be complete prior to FY 2006 and includes the remediation of the Hazardous Chemical Disposal Area, NT3 and the Oil Land Farm Soil Storage Facility.

BCV Burial Grounds - The RDR and the RAWP will be complete prior to the end of FY 2006. The remedial action will begin in FY 2006 and be completed in FY 2007.

The BCV White Wing Scrap Yard - This subproject will be complete prior to FY 2006 and includes Characterization, Evaluation, and Removal Action.

UEFPC Soils Phase 1 - This subproject will be complete prior to FY 2006 and includes RDR/RAWP, Remedial Action, and RAR.

UEFPC In-situ Remediation - This subproject will be complete prior to FY 2006 and includes RDR/RAWP, Remedial Action, and RAR.

UEPFC Sediments Phase 1 - The entire effort under Sediments Phase 1 will be completed prior to FY 2006 and includes RDR/RAWP, Remedial Action, and RAR.

UEFPC West End Mercury Area Remediation - This entire subproject will be completed prior to FY 2006 and includes RDR/RAWP, Remedial Action, and RAR.

Chestnut Ridge Soils Remediation - The RDR and the RAWP will be complete prior to the end of FY 2006.

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Project OR-221 / Y-12 Remedial Action

Project Description Narratives

BCV DARA/SSF - The RDR, the RAWP, and the remedial action will be completed prior to FY 2006.

Post-2006 Project Scope:

UEFPC ROD Phases 2 - Phase 2 will include completion of the Record of Decision and the Remedial Design Work Plan.

Clinch River/Poplar Creek Surface Water ROD - The Record of Decision will be complete prior to the end of FY 2007.

UEFPC Groundwater - The Remedial Action will be completed in FY 2009 and the RAR will be completed in the post-2006 time frame as well.

BCV Burial Grounds - The remedial action will be completed in FY 2007 and the RAR will be completed prior to the end of FY 2008.

UEFPC Soils Phase 2 - All parts of this subproject will be completed between FY 2008 and FY 2012. This includes the RDR/RAWP, the remedial action and the RAR.

UEPFC Sediments Phase 2 - All of Phase 2 will be completed in the post-2006 time frame and includes RDR/RAWP, Remedial Action, and RAR.

Chestnut Ridge Soils Remediation - The remedial action and the RAR will be completed in the post-2006 era.

BCV DARA/SSF - The RAR will be completed in FY 2007.

Project End State

UEFPC ROD Phases 1 and 2 - Remedy selection and documentation of the remedy will be complete at the end of Phase 1. This phase of the ROD focuses on mercury source control actions and natural attenuation of groundwater. The Phase 2 ROD addresses soil remedial actions for worker protection; surface water actions including monitoring and other mercury source actions, as necessary; additional UEFPC sediment removal; building D&D; additional groundwater actions; and Footprint Reduction sites.

BCV ROD Phases 1 and 2 - The Phase 1ROD will establish initial remedial goals for all media in the watershed. The Phase 2 ROD will finalize the goals for the watershed.

Chestnut Ridge ROD - Remedy selection and documentation of the remedy will be the end-state.

Clinch River/ Poplar Creek Surface Water ROD - Remedy selection and documentation of the remedy will be the end-state.

UEFPC West End Mercury Area Pre-design Study - Evaluations needed to provide data for design of hydraulic isolation actions will be complete.

BCV S-3 Ponds - The risks to human health and the environment will be reduced to levels consistent with the goals of the BCV Phase 1ROD.

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Project OR-221 / Y-12 Remedial Action

Project Description Narratives

UEPFC East End VOC Plumes - A pump and treat system coupled with bioremediation near the source area will be the end state for this subproject.

BCV Groundwater - Institutional controls and monitored natural attenuation will be the end-state for this subproject.

UEFPC Groundwater - Institutional controls and monitored natural attenuation will be the end-state for this subproject.

Reduction of Mercury in Plant Effluents - A completed in-situ thermal treatment technology demonstration with a summary report and the stabilization of 1000 feet of creek bank will be the end-state of this subproject.

BCV Boneyard/Burnyard - The end-state for this subproject will be the excavation and/or hydraulic isolation of the waste as well as the disposition of soils stored at the Oil Landfarrn Soil Containment Pad and the demolition of the building and concrete pad.

BCV Burial Grounds - In-place management of wastes to prevent future releases of contamination to the environment is the end-state for this subproject.

The BCV White Wing Scrap Yard - Waste remaining at the scrap yard will be excavated and properly disposed. The site will be re-designated "unrestricted use".

UEFPC Soils Phases 1& 2 - The end-state of these two subprojects is DOE controlled industrial use and uncontrolled industrial land use, dependent on location.

UEFPC In-situ Remediation - The end-state of the remediated areas will be institutional control by DOE.

UEPFC Sediments Phases 1 and 2 - The end-state for these two subprojects will be that sediment re-suspension will meet the recreational use criteria.

UEFPC West End Mercury Area Remediation - Hydraulic isolation of surface and groundwater from contaminated soils near Buildings 9201-4, 9201-5 and 9204-4.

Chestnut Ridge Soils Remediation - The end-state of this subproject will be the reduction of long-term stewardship costs and liabilities associated with the regulatory status of the site as well as provide for protection to the environment and human health from potential exposure.

BCV DARA/SSF - The end-state of this subproject is the removal of soils stored in the facility and the demolition of the facility.

Cost Baseline Comments:

The DOE EM Life Cycle Baseline that was recently issued in draft form from Bechtel Jacobs Company LLC Co. to DOE ORO is the cost basis for the PBS. Following development of scope statements, several methods were used for creating the cost estimates in the Life Cycle Baseline: use of cost estimating models, use of existing estimates, use of unit-price estimates, and extrapolation estimates. These include the following: 1) Cost Estimating Models - These innovative models were prepared using the government-accepted RACER cost database or were based on historical cost data for

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Project OR-221 / Y-12 Remedial Action

Project Description Narratives

similar local work. 2) Existing Estimates - Existing estimates were also used. These estimates range previously approved Fiscal Year Baseline estimates to Feasibility Study estimates. Regardless of the source of the estimate, the estimates were reviewed for accuracy and modified as required to adequately qualify the line-item cost data. 3) Unit-Price Estimates (Parametric)- Unit-price estimates, which are typically derived from historical cost data and are based on cost estimating relationships, were also used. 4) Extrapolation Estimates - Extrapolation estimates were typically derived from historical cost data and/or based on other previously approved estimates with similar scope. No matter which estimating method was used, each estimate was reviewed for errors, omissions, and consistency.

Safety & Health Hazards:

Systems and processes are developed under the Integrated Safety Management System (ISMS) implementation to ensure that Bechtel Jacobs Company LLC Co. and its subcontractors perform an analysis of hazards before the start of work. This is accomplished as hazards are identified that are associated with the performance of tasks. We examine available site data, interview people involved in the work processes, and perform site walkdowns. If existing information does not provide adequate data to identify hazards, sampling and characterization is performed, as necessary.

After hazards are identified they are analyzed initially by team walkdowns, which includes only those individuals familiar with the task activities and associated hazards. Information gathered during preparation of the preliminary hazard assessment is used to develop specific subcontract language and a tailored compliance matrix for subcontract packages. This language specifically requires the submittal of an ES&H plan and identification of applicable contractual ES&H requirements based on the complexity and risk associated with the work.

UEFPC ROD Phases 1 and 2 - Work entails the planning and writing of documents, therefore no significant hazards are expected.

BCV ROD Phases 1 and 2 - Work entails the planning and writing of documents, therefore no significant hazards are expected.

Chestnut Ridge ROD - Work entails the planning and writing of documents, therefore no significant hazards are expected.

Clinch River/ Poplar Creek Surface Water ROD - Work entails the planning and writing of documents, therefore no significant hazards are expected.

UEFPC West End Mercury Area Pre-design Study - Hazards associated with well installation and the performance of pump tests may be expected.

BCV S-3 Ponds - General construction and excavation hazards may be expected. In addition, hazards associated with RCRA and low-level radiological contamination may be expected.

UEPFC East End VOC Plumes - Hazards associated with well installation and general construction in an area of organic contamination may be expected.

BCV Groundwater - Hazards associated with installation of institutional controls such as fencing, etc. may be expected.

UEFPC Groundwater- Hazards associated with installation of institutional controls such as fencing, etc. may be expected.

Reduction of Mercury in Plant Effluents - Hazards associated with the excavation of contaminated soils and the use of thermal treatment of mercury

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Project Description Narratives

may be expected. In addition, hazards associated with applying geotextile material and riprap to creek banks contaminated with mercury may be expected.

BCV Boneyard/Burnyard - Hazards associated with excavation, construction and demolition in an area contaminated with uranium may be expected.

BCV Burial Grounds - Hazards associated with in-place management such as sampling and monitoring may be expected.

BCV White Wing Scrap Yard - General construction and excavation hazards may be expected.

UEFPC Soils Phase 1 & 2 - Hazards associated with excavation and low temperature thermal treatment of soils contaminated with low-level radionuclides and mercury may be expected.

UEFPC In-situ Remediation - Hazards associated with the use of in-situ thermal desorption of an area contaminated with mercury and PCBs.

UEPFC Sediments Phases 1 and 2 - Hazards associated with excavation and low temperature thermal treatment of mercury contaminated sediments from UEFPC and Lake Reality may be expected.

UEFPC West End Mercury Area Remediation - Hazards associated with the installation of groundwater wells, asphalt caps and storm sewer system improvements in areas contaminated with low-level radionuclides and mercury may be expected.

Chestnut Ridge Soils Remediation - Hazards associated with soil and debris removal and treatment may be expected. Low temperature thermal desorption treatment will be used.

BCV DARA/SSF - Hazards associated with construction, soil movement, and demolition may be expected.

Safety & Health Work Performance:

To perform work safely, Bechtel Jacobs Company LLC must confirm the readiness of the project team and its subcontractors, verify that the necessary work authorization documents are in place, and ensure that effective systems for managing change are in place. It is important to note that management empowers all employees to refuse to perform work that is unsafe, even if directed to so by supervisors, customers, or other prime contractors on shared sites. An approved Environment, Health and Safety Plan is prepared which will describe the safety measures to be taken where hazards are expected.

PBS Comments:

Baseline Validation Narrative:

The Oak Ridge Operations Office Environmental Management Life Cycle Baseline (LCB) was submitted by the Managing and Integrating Contractor, Bechtel Jacobs Company LLC, to DOE-ORO on April 1, 1999. The final draft LCB will be submitted to DOE-ORO on June 1, 1999 after formal receipt and incorporation of comments. A validation of the baseline is in process using an independent contractor to DOE-ORO. The validation will be

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Project Description Narratives

ongoing until complete and the final validation report is scheduled to be issued on June 25, 1999.

General PBS Information

FEDPLAN Project?

Project Validated? Date Validated:

Yes

Has Headquarters reviewed and approved project?

No

Date Project was Added:3/10/1999Baseline Submission Date:7/1/1999

CERCLA RCRA DNFSB AEA UMTRCA DOE Orders Drivers: State Other Y Ν N N Ν N Y N

Project Identification Information

DOE Project Manager: Dave Adler

DOE Project Manager Phone Number: 423-576-4094

DOE Project Manager Fax Number: 423-576-5333

 $\textbf{DOE Project Manager e-mail address:} \qquad \qquad \text{adlerdg@oro.doe.gov}$

Is this a High Visibility Project (Y/N):

Planning Section

Baseline Costs (in thousands of dollars)

	1997-2006 Total	2007-2070 Total	1997-2070 Total	1997	Actual 1997	1998	Actual 1998	1999	2000	2001	2002	2003	2004	2005	2006
PBS Baseline (current year dollars)	288,729	167,600	456,329	16,578	14,188	16,578	17,368	5,199	10,976	17,352	34,691	58,486	42,159	20,595	66,115
PBS Baseline (constant 1999 dollars)	265,509	137,925	403,434	16,578	14,188	16,578	17,368	5,199	10,750	16,646	32,594	53,821	37,998	18,181	57,164

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Project OR-221 / Y-12 Remedial Action

Baseline Costs (in thousands of dollars)															
	1997-200 Total	6 2007-2 Tota			1997 A	ctual 1997	1998 Acti 19	ual 199 98	9 2000	2001	2002	2003	2004	2005	2006
PBS EM Baseline (current year dollars)	288,72	.9 167,	600 45	56,329 1	6,578 14	1,188 16	578 17,3	5,199	9 10,976	17,352	34,691	58,486	42,159	20,595	66,115
PBS EM Baseline (constant 1999 dollars)	265,50	9 137,	925 40	03,434 1	6,578 14	4,188 16	578 17,3	5,199	9 10,750	16,646	32,594	53,821	37,998	18,181	57,164
	2007	2008	2009	2010	2011- 2015			026- 030 203			2046- 2050	2051- 2055	2056- 2060	2061- 2065	2066- 2070
PBS Baseline (current year dollars)	105,262	6,415	2,502	31,000	22,421	0	0	0	0	0	0	0 0	0	0	0
PBS Baseline (constant 1999 dollars)	89,139	5,321	2,032	24,665	16,768	0	0	0	0	0	0	0 0	0	0	0
PBS EM Baseline (current year dollars)	105,262	6,415	2,502	31,000	22,421	0	0	0	0	0	0	0 0	0	0	0
PBS EM Baseline (constant 1999 dollars)	89,139	5,321	2,032	24,665	16,768	0	0	0	0	0	0 (0 0	0	0	0
Baseline Escalation	n Rates														
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009		
	0.00%	0.00%	0.00%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%		
	2010	2011-2015	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	2041-2045	2046-2050	2051-2055	2056-2060	2061-2065	2066-2070		
	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%	2.10%		

Project Reconciliation

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Project OR-221 / Y-12 Remedial Action

Project Reconciliation

Project Completion Date Changes:

Previously Projected End Date of Project:

Current Projected End Date of Project: 9/30/2013 Explanation of Project Completion Date Difference (if applicable):

Project Cost Estimates (in thousands of dollars)

Previously Estimated Lifecycle Cost (1997 - 2070, 1998 Dollars): Actual 1997 Cost: 14,188 Actual 1998 Cost: 17,368

Previously Estimated Lifecycle Cost of Project (1999 - 2070, 1998 Dollars): -31,556 Inflation Adjustment (2.7% to convert 1998 to 1999 dollars): -852

Previously Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars): -32,408

Project Cost Changes

Cost Adjustments Reconciliation Narratives

Cost Change Due to Scope Deletions (-):

Cost Reductions Due to Efficiencies (-):

Cost Associated with New Scope (+):

Cost Growth Associated with Scope Previously Reported (+):

Cost Reductions Due to Science & Technology Efficiencies (-):

Subtotal: -32,408

Additional Amount to Reconcile (+): 402,686

Current Estimated Lifecycle Cost (1999 - 2070, 1999 Dollars): 370,278

Milestones

Milestone/Activity Field Milestone Original **Baseline** Legal Forecast Actual EA DNFSB Mgmt. Key Intersite Code Date Date Date Date Date Commit. Decision

REMEDIAL DESIGN WORK PLAN TO DOE FOR

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Project OR-221 / Y-12 Remedial Action

Milestones											
Milestone/Activity	Field Milestone Code	Original Date	Baseline Date	Legal Date	Forecast Date	Actual Date	EA	DNFSB	Mgmt. Commit.	Key Decision	Intersite
REG											
BCV Watershed ROD - Phase 2 - SUBMIT DRAFT PROPOSED RA PLAN TO REGS FOR REVIEW	OR221-002		5/17/2004								
BCV Watershed ROD - Phase 2 - SUBMIT DRAFT RECORD OF DECISION TO REGS FOR REVIEW	OR221-003		12/1/2004								
BCV Watershed ROD - Phase 2 - SUBMIT DRAFT REMEDIAL DESIGN WORK PLAN TO REGS FOR	OR221-004		6/8/2005								
UEFPC Watershed ROD - Phase 1 - SUBMIT DRAFT PROPOSED RA PLAN TO REGS FOR REVIEW	OR221-005		7/1/1999	8/30/1999			Y				
UEFPC Watershed ROD - Phase 1 - SUBMIT DRAFT RECORD OF DECISION TO REGS FOR REVIEW	OR221-006		4/27/2000	6/30/2000			Y				
UEFPC Watershed ROD - Phase 1 - SUBMIT DRAFT REMEDIAL DESIGN WORK PLAN TO REGS FOR	OR221-007		11/28/2000	1/30/2001			Y				
UEFPC Watershed ROD - Phase 2 - SUBMIT DRAFT PROPOSED RA PLAN TO REGS FOR REVIEW	or221-008		1/9/2006								
UEFPC Watershed ROD - Phase 2 - SUBMIT DRAFT RECORD OF DECISION TO REGS FOR REVIEW	OR221-009		8/3/2006								
UEFPC Watershed ROD - Phase 2 - SUBMIT DRAFT REMEDIAL DESIGN WORK PLAN TO REGS FOR	OR221-009		2/9/2007								
Chestnut Ridge ROD - SUBMIT DRAFT PROPOSED RA PLAN TO REGS FOR REVIEW	OR221-010		3/3/2003								
Chestnut Ridge ROD - SUBMIT DRAFT RECORD OF DECISION TO REGS FOR REVIEW	OR221-11		11/25/2003								
Chestnut Ridge ROD - SUBMIT DRAFT RDR/RAWP TO REGS FOR REVIEW	OR221-012		10/22/2004								
Clinch River/Poplar Creek Surface Water ROD - SUBMIT DRAFT RECORD OF DECISION TO REGS FOR REVIEW	OR221-013		8/16/2006								

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Project OR-221 / Y-12 Remedial Action

Milestones											
Milestone/Activity	Field Milestone Code	Original Date	Baseline Date	Legal Date	Forecast Date	Actual Date	EA	DNFSB	Mgmt. Commit.	Key Decision	Intersite
BCV S-3 Ponds (P1&P2) - SUBMIT DRAFT REMOVAL ACTION REPORT TO REGS FOR REVIEW	OR221-013		8/30/1999	8/30/1999			Y				
BCV S-3 Ponds (P1&P2) - SUBMIT DRAFT RDR/RAWP TO REGS FOR REVIEW	OR221-14		8/3/2000								
BCV S-3 Ponds (P1&P2) - CORRECTIVE MEASURES/REMEDIAL ACTION START	OR221-015		9/12/2001								
BCV S-3 Ponds (P1&P2) - CORRECTIVE MEASURES/REMEDIAL ACTION COMPLETE	OR221-016		9/12/2002								
BCV S-3 Ponds (P1&P2)SUBMIT DRAFT REMEDIAL ACTION REPORT TO REGS FOR REVIEW	OR221-019		12/12/2002								
BCV S-3 Ponds (P3) - SUBMIT DRAFT RDR/RAWP TO REGS FOR REVIEW	OR221-017		12/21/2000	1/30/2001			Y				
BCV S-3 Ponds (P3) - SUBMIT DRAFT REMEDIAL ACTION REPORT TO REGS FOR REVIEW	OR221-018		5/2/2002								
UEFPC East End VOC Plumes - SUBMIT DRAFT EE/CA TO REGS FOR REVIEW	OR221-020		10/30/1998	10/30/1998			Y				
UEFPC East End VOC Plumes - SUBMIT DRAFT ACTION MEMORANDUM TO DOE FOR REVIEW	OR221-026		4/1/1999								
UEFPC East End VOC Plumes - SUBMIT DRAFT ACTION MEMORANDUM TO REGS FOR REVIEW	OR221-021		4/30/1999	4/30/1999			Y				
UEFPC East End VOC Plumes - SUBMIT DRAFT REMOVAL ACTION WP TO REGS FOR REVIEW	OR221-022		6/1/1999	6/1/1999			Y				
UEFPC East End VOC Plumes (Pump &Treat) - REMOVAL ACTION CONSTRUCTION START	OR-023		10/15/1999								
UEFPC East End VOC Plumes (Pump &Treat) - REMOVAL ACTION CONSTRUCTION COMPLETE	OR221-024		2/18/2000								

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Project OR-221 / Y-12 Remedial Action

Milestones											
Milestone/Activity	Field Milestone Code	Original Date	Baseline Date	Legal Date	Forecast Date	Actual Date	EA	DNFSB	Mgmt. Commit.	Key Decision	Intersite
UEFPC East End VOC Plumes (Bioremediation) - CONSTRUCTION START	OR221-025		12/20/2000								
UEFPC East End VOC Plumes (Bioremediation) - CONSTRUCTION COMPLETE	OR221-026		7/19/2001								
UEFPC East End VOC Plumes (Pump & Treat) - SUBMIT DRAFT REMOVAL ACTION REPORT TO REGS FOR REVIEW	OR221-027		6/8/2000	6/30/2000			Y				
UEFPC East End VOC Plumes (Bioremediation) - SUBMIT DRAFT REMOVAL ACTION REPORT TO REGS FOR REVIEW	OR221-028		1/9/2002								
BCV Groundwater - SUBMIT DRAFT RDR/RAWP TO REGS FOR REVIEW	OR221-029		9/6/2005								
UEFPC Groundwater - SUBMIT DRAFT RDR/RAWP TO REGS FOR REVIEW	OR221-030		6/27/2001								
UEFPC Groundwater - CORRECTIVE MEASURES/REMEDIAL ACTION START	OR221-031		1/7/2002								
UEFPC Groundwater - CORRECTIVE MEASURES/REMEDIAL ACTION COMPLETE	OR221-032		9/17/2009								
UEFPC Groundwater - SUBMIT DRAFT REMEDIAL ACTION REPORT TO REGS FOR REVIEW	OR221-033		12/17/2009								
BCV Boneyard/Burnyard (BYBY/HCDA & NT3) - SUBMIT DRAFT RDR/RAWP TO REGS FOR REVIEW	OR221-034		10/16/1998	5/14/1999			Y				
BCV Boneyard/Burnyard (BYBY/HCDA & NT3) - CORRECTIVE MEASURES/REMEDIAL ACTIONS START	OR221-035		9/1/1999								
BCV Boneyard/Burnyard (BYBY/HCDA & NT3) - CORRECTIVE MEASURES/REMEDIAL ACTION COMPLETE	OR221-036		9/29/2000								

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Project OR-221 / Y-12 Remedial Action

Milestones											
Milestone/Activity	Field Milestone Code	Original Date	Baseline Date	Legal Date	Forecast Date	Actual Date	EA	DNFSB	Mgmt. Commit.	Key Decision	Intersite
BCV Boneyard/Burnyard (BYBY/HCDA & NT3) - SUBMIT DRAFT REMEDIAL ACTION REPORT TO REGS FOR REVIEW	OR221-037		3/27/2001								
BCV Boneyard/Burnyard (OLF SSF) - SUBMIT DRAFT RDR/RAWP TO REGS FOR REVIEW	OR221-038		1/19/1999	5/14/1999			Y				
BCV Boneyard/Burnyard (OLF SSF) - SUBMIT DRAFT REMEDIAL ACTION REPORT TO REGS FOR REVIEW	OR221-039		6/1/2000	8/15/2000			Y				
BCV Burial Grounds - SUBMIT DRAFT RDR/RAWP TO REGS FOR REVIEW	OR221-039		6/21/2005								
BCV Burial Grounds - CONSTRUCTION START	OR221-040		8/3/2006								
BCV Burial Grounds - CONSTRUCTION COMPLETE	OR221-041		1/10/2007								
BCV Burial Grounds - SUBMIT DRAFT REMEDIAL ACTION REPORT TO REGS FOR REVIEW	OR221-042		6/20/2007								
BCV White Wing Scrap Yard - SUBMIT DRAFT EE/CA TO REGS FOR REVIEW	OR221-043		10/26/2001								
BCV White Wing Scrap Yard - SUBMIT DRAFT ACTION MEMORANDUM TO REGS FOR REVIEW	OR221-044		4/22/2002								
BCV White Wing Scrap Yard - SUBMIT DRAFT REMOVAL ACTION WP TO REGS FOR REVIEW	OR221-045		5/28/2002								
BCV White Wing Scrap Yard - REMOVAL ACTION CONSTRUCTION START	OR221-046		11/7/2002								
BCV White Wing Scrap Yard - REMOVAL ACTION CONSTRUCTION COMPLETE	OR221-047		11/20/2003								
BCV White Wing Scrap Yard - SUBMIT DRAFT REMOVAL ACTION REPORT TO REGS FOR REVIEW	OR221-048		1/23/2004								
UEFPC Soils Remediation - Phase 1 - SUBMIT	OR221-049		1/29/2001								

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Project OR-221 / Y-12 Remedial Action

Milestones											
Milestone/Activity	Field Milestone Code	Original Date	Baseline Date	Legal Date	Forecast Date	Actual Date	EA	DNFSB	Mgmt. Commit.	Key Decision	Intersite
DRAFT RDR/RAWP TO REGS FOR REVIEW											
UEFPC Soils Remediation - Phase 1 - CORRECTIVE MEASURES/REMEDIAL ACTION START	OR221-050		8/3/2001								
UEFPC Soils Remediation - Phase 1 - CORRECTIVE MEASURES/REMEDIAL ACTION COMPLETE	OR221-051		11/29/2004								
UEFPC Soils Remediation - Phase 1 - SUBMIT DRAFT REMEDIAL ACTION REPORT TO REGS FOR REVIEW	OR221-052		3/2/2005								
UEFPC Soils Remediation - Phase 2 - SUBMIT DRAFT RDR/RAWP TO REGS FOR REVIEW	OR221-053		5/12/2009								
UEFPC Soils Remediation - Phase 2 - CORRECTIVE MEASURES/REMEDIAL ACTION START	OR221-054		11/16/2009								
UEFPC Soils Remediation - Phase 2 - CORRECTIVE MEASURES/REMEDIAL ACTION COMPLETE	OR221-055		1/21/2011								
UEFPC Soils Remediation - Phase 2 - SUBMIT DRAFT REMEDIAL ACTION REPORT TO REGS FOR REVIEW	OR221-056		4/20/2011								
UEFPC In-Situ Remediation - SUBMIT DRAFT RDR/RAWP TO REGS FOR REVIEW	OR221-057		6/27/2001								
UEFPC In-Situ Remediation - SUBMIT DRAFT REMEDIAL ACTION REPORT TO REGS FOR REVIEW	OR221-058		4/4/2003								
UEFPC Sediments Remediation - Phase 1 - SUBMIT DRAFT RDR/RAWP TO REGS FOR REVIEW	OR221-059		11/17/2003								
UEFPC Sediments Remediation - Phase 1 - CORRECTIVE MEASURES/REMEDIAL ACTION START	OR221-060		5/26/2004								
UEFPC Sediments Remediation - Phase 1 - CORRECTIVE MEASURES/REMEDIAL ACTION	OR221-061		7/28/2004								

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Project OR-221 / Y-12 Remedial Action

Milestones											
Milestone/Activity	Field Milestone Code	Original Date	Baseline Date	Legal Date	Forecast Date	Actual Date	EA	DNFSB	Mgmt. Commit.	Key Decision	Intersite
COMPLETE											
UEFPC Sediments Remediation - Phase 1 - SUBMIT DRAFT REMEDIAL ACTION REPORT TO REGS FOR REVIEW	OR221-062		10/26/2004								
UEFPC Sediments Remediation - Phase 2 - SUBMIT DRAFT RDR/RAWP TO REGS FOR REVIEW	OR221-063		11/2/2011								
UEFPC Sediments Remediation - Phase 2 - CORRECTIVE MEASURES/REMEDIAL ACTION START	OR221-064		5/11/2012								
UEFPC Sediments Remediation - Phase 2 - CORRECTIVE MEASURES/REMEDIAL ACTION COMPLETE	OR221-064		9/12/2012								
UEFPC Sediments Remediation - Phase 2 - SUBMIT DRAFT REMEDIAL ACTION REPORT TO REGS FOR REVIEW	OR221-065		12/12/2012								
West End Mercury Area Remediation - SUBMIT DRAFT RDR/RAWP TO REGS FOR REVIEW	OR221-066		3/20/2002								
West End Mercury Area Remediation - CORRECTIVE MEASURES/REMEDIAL ACTION START	OR221-067		9/25/2002								
West End Mercury Area Remediation - CORRECTIVE MEASURES/REMEDIAL ACTION COMPLETE	OR221-068		9/23/2004								
West End Mercury Area Remediation - SUBMIT DRAFT REMEDIAL ACTION REPORT TO REGS FOR REVIEW	OR221-069		12/23/2004								
Chestnut Ridge Soils Remediation - SUBMIT DRAFT RDR/RAWP TO REGS FOR REVIEW	OR221-070		12/21/2005								
Chestnut Ridge Soils Remediation - CORRECTIVE MEASURES/REMEDIAL ACTION START	OR221-071		6/29/2006								
Chestnut Ridge Soils Remediation - CORRECTIVE	OR221-072		6/27/2008								

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Project OR-221 / Y-12 Remedial Action

Milestones													
Milestone/Activity		Field M Co		Original Date	Baseline Date	Legal Date	Forecast Date	Actual Date	EA	DNFSB	Mgmt. Commit.	Key Decision	Intersite
MEASURES/REMEDIAL ACTIO	ON COMPLETE												
Chestnut Ridge Soils Remediation REMEDIAL ACTION REPORT REVIEW		OR221-073			9/23/2008								
BCV DARA/SSF - SUBMIT DRA REGS FOR REVIEW	AFT RDR/RAWP TO	OR221-074			3/29/2004								
BCV DARA/SSF - CONSTRUCT	ΓΙΟΝ START	OR221-075			5/10/2005								
BCV DARA/SSF - CONSTRUCT	ΓΙΟΝ COMPLETE	OR221-076			5/11/2006								
BCV DARA/SSF - SUBMIT DRACTION REPORT TO REGS FO		OR221-077			12/11/2006								
Start Date for the Y-12 Remedial START DATE	Action PBS - PBS	OR221-078			10/1/1996								
End Date for the Y-12 Remedial AEND DATE	Action PBS - PBS	OR221-079			9/30/2013								
Y-12 Remedial Action Mission C	Completion	OR221-080			9/30/2013								
Milestones - Part II													
Milestone/Activity	Field Milestone Code	Critical Decision	Critial Closure Patl	Projec n Start	•	Mission Complet		Work Scope Risk	Intersite Risk	Cancelle	ed	Milestone D	escription
BCV Watershed ROD - Phase 1 - SUBMIT DRAFT REMEDIAL DESIGN WORK PLAN TO DOE FOR REG	OR221-001										BCV V	Watershed RC	DD - Phase 1
BCV Watershed ROD - Phase 2 - SUBMIT DRAFT PROPOSED RA PLAN TO REGS FOR REVIEW	OR221-002										BCV V	Watershed RC	DD - Phase 2
BCV Watershed ROD - Phase 2 - SUBMIT DRAFT RECORD OF DECISION TO REGS FOR	OR221-003										BCV V	Watershed RC	DD - Phase 2

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Project OR-221 / Y-12 Remedial Action

Milestones - Part II											
Milestone/Activity	Field Milestone Code	Critical Decision	Critial Closure Path	Project Start	Project End	Mission Complete	Tech Risk	Work Scope Risk	Intersite Risk	Cancelled	Milestone Description
REVIEW											
BCV Watershed ROD - Phase 2 - SUBMIT DRAFT REMEDIAL DESIGN WORK PLAN TO REGS FOR	OR221-004										BCV Watershed ROD - Phase 2
UEFPC Watershed ROD - Phase 1 - SUBMIT DRAFT PROPOSED RA PLAN TO REGS FOR REVIEW	OR221-005										UEFPC Watershed ROD - Phase 1
UEFPC Watershed ROD - Phase 1 - SUBMIT DRAFT RECORD OF DECISION TO REGS FOR REVIEW	OR221-006		Y				3	1	1		UEFPC Watershed ROD - Phase 1
UEFPC Watershed ROD - Phase 1 - SUBMIT DRAFT REMEDIAL DESIGN WORK PLAN TO REGS FOR	OR221-007										UEFPC Watershed ROD - Phase 1
UEFPC Watershed ROD - Phase 2 - SUBMIT DRAFT PROPOSED RA PLAN TO REGS FOR REVIEW	or221-008										UEFPC Watershed ROD - Phase 2
UEFPC Watershed ROD - Phase 2 - SUBMIT DRAFT RECORD OF DECISION TO REGS FOR REVIEW	OR221-009		Y				3	1	1		UEFPC Watershed ROD - Phase 2
UEFPC Watershed ROD - Phase 2 - SUBMIT DRAFT REMEDIAL DESIGN WORK PLAN TO REGS FOR	OR221-009										UEFPC Watershed ROD - Phase 2
Chestnut Ridge ROD - SUBMIT DRAFT PROPOSED RA PLAN	OR221-010										Chestnut Ridge ROD

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Project OR-221 / Y-12 Remedial Action

Milestones - Part II											
Milestone/Activity	Field Milestone Code	Critical Decision	Critial Closure Path	Project Start	Project End	Mission Complete	Tech Risk	Work Scope Risk	Intersite Risk	Cancelled	Milestone Description
TO REGS FOR REVIEW											
Chestnut Ridge ROD - SUBMIT DRAFT RECORD OF DECISION TO REGS FOR REVIEW	OR221-11										Chestnut Ridge ROD
Chestnut Ridge ROD - SUBMIT DRAFT RDR/RAWP TO REGS FOR REVIEW	OR221-012										Chestnut Ridge ROD
Clinch River/Poplar Creek Surface Water ROD - SUBMIT DRAFT RECORD OF DECISION TO REGS FOR REVIEW	OR221-013										Clinch River/Poplar Creek Surface Water ROD
BCV S-3 Ponds (P1&P2) - SUBMIT DRAFT REMOVAL ACTION REPORT TO REGS FOR REVIEW	OR221-013										BCV S-3 Ponds (P1&P2)
BCV S-3 Ponds (P1&P2) - SUBMIT DRAFT RDR/RAWP TO REGS FOR REVIEW	OR221-14										BCV S-3 Ponds (P1&P2)
BCV S-3 Ponds (P1&P2) - CORRECTIVE MEASURES/REMEDIAL ACTION START	OR221-015										BCV S-3 Ponds (P1&P2)
BCV S-3 Ponds (P1&P2) - CORRECTIVE MEASURES/REMEDIAL ACTION COMPLETE	OR221-016										BCV S-3 Ponds (P1&P2)
BCV S-3 Ponds (P1&P2)SUBMIT DRAFT REMEDIAL ACTION REPORT TO REGS FOR REVIEW	OR221-019										BCV S-3 Ponds (P1&P2)
BCV S-3 Ponds (P3) - SUBMIT DRAFT RDR/RAWP TO REGS	OR221-017										BCV S-3 Ponds (P3)

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Project OR-221 / Y-12 Remedial Action

Milestones - Part II											
Milestone/Activity	Field Milestone Code	Critical Decision	Critial Closure Path	Project Start	Project End	Mission Complete	Tech Risk	Work Scope Risk	Intersite Risk	Cancelled	Milestone Description
FOR REVIEW											
BCV S-3 Ponds (P3) - SUBMIT DRAFT REMEDIAL ACTION REPORT TO REGS FOR REVIEW	OR221-018										BCV S-3 Ponds (P3)
UEFPC East End VOC Plumes - SUBMIT DRAFT EE/CA TO REGS FOR REVIEW	OR221-020										UEFPC East End VOC Plumes
UEFPC East End VOC Plumes - SUBMIT DRAFT ACTION MEMORANDUM TO DOE FOR REVIEW	OR221-026										UEFPC East End VOC Plumes
UEFPC East End VOC Plumes - SUBMIT DRAFT ACTION MEMORANDUM TO REGS FOR REVIEW	OR221-021										UEFPC East End VOC Plumes
UEFPC East End VOC Plumes - SUBMIT DRAFT REMOVAL ACTION WP TO REGS FOR REVIEW	OR221-022										UEFPC East End VOC Plumes
UEFPC East End VOC Plumes (Pump &Treat) - REMOVAL ACTION CONSTRUCTION START	OR-023										UEFPC East End VOC Plumes (Pump &Treat)
UEFPC East End VOC Plumes (Pump &Treat) - REMOVAL ACTION CONSTRUCTION COMPLETE	OR221-024										UEFPC East End VOC Plumes (Pump & Treat)
UEFPC East End VOC Plumes (Bioremediation) - CONSTRUCTION START	OR221-025										UEFPC East End VOC Plumes (Bioremediation)

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Milestones - Part II											
Milestone/Activity	Field Milestone Code	Critical Decision	Critial Closure Path	Project Start	Project End	Mission Complete	Tech Risk	Work Scope Risk	Intersite Risk	Cancelled	Milestone Description
UEFPC East End VOC Plumes (Bioremediation) - CONSTRUCTION COMPLETE	OR221-026										UEFPC East End VOC Plumes (Bioremediation)
UEFPC East End VOC Plumes (Pump & Treat) - SUBMIT DRAFT REMOVAL ACTION REPORT TO REGS FOR REVIEW	OR221-027										UEFPC East End VOC Plumes (Pump & Treat)
UEFPC East End VOC Plumes (Bioremediation) - SUBMIT DRAFT REMOVAL ACTION REPORT TO REGS FOR REVIEW	OR221-028										UEFPC East End VOC Plumes (Bioremediation)
BCV Groundwater - SUBMIT DRAFT RDR/RAWP TO REGS FOR REVIEW	OR221-029										BCV Groundwater
UEFPC Groundwater - SUBMIT DRAFT RDR/RAWP TO REGS FOR REVIEW	OR221-030										UEFPC Groundwater
UEFPC Groundwater - CORRECTIVE MEASURES/REMEDIAL ACTION START	OR221-031										UEFPC Groundwater
UEFPC Groundwater - CORRECTIVE MEASURES/REMEDIAL ACTION COMPLETE	OR221-032										UEFPC Groundwater
UEFPC Groundwater - SUBMIT DRAFT REMEDIAL ACTION REPORT TO REGS FOR REVIEW	OR221-033										UEFPC Groundwater
BCV Boneyard/Burnyard (BYBY/HCDA & NT3) - SUBMIT DRAFT RDR/RAWP TO REGS	OR221-034										BCV Boneyard/Burnyard (BYBY/HCDA & NT3)

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Project OR-221 / Y-12 Remedial Action

Milestones - Part II											
Milestone/Activity	Field Milestone Code	Critical Decision	Critial Closure Path	Project Start	Project End	Mission Complete	Tech Risk	Work Scope Risk	Intersite Risk	Cancelled	Milestone Description
FOR REVIEW											
BCV Boneyard/Burnyard (BYBY/HCDA & NT3) - CORRECTIVE MEASURES/REMEDIAL ACTIONS START	OR221-035										BCV Boneyard/Burnyard (BYBY/HCDA & NT3)
BCV Boneyard/Burnyard (BYBY/HCDA & NT3) - CORRECTIVE MEASURES/REMEDIAL ACTION COMPLETE	OR221-036										BCV Boneyard/Burnyard (BYBY/HCDA & NT3)
BCV Boneyard/Burnyard (BYBY/HCDA & NT3) - SUBMIT DRAFT REMEDIAL ACTION REPORT TO REGS FOR REVIEW	OR221-037										BCV Boneyard/Burnyard (BYBY/HCDA & NT3)
BCV Boneyard/Burnyard (OLF SSF) - SUBMIT DRAFT RDR/RAWP TO REGS FOR REVIEW	OR221-038										BCV Boneyard/Burnyard (OLF SSF)
BCV Boneyard/Burnyard (OLF SSF) - SUBMIT DRAFT REMEDIAL ACTION REPORT TO REGS FOR REVIEW	OR221-039										BCV Boneyard/Burnyard (OLF SSF)
BCV Burial Grounds - SUBMIT DRAFT RDR/RAWP TO REGS FOR REVIEW	OR221-039										BCV Burial Grounds
BCV Burial Grounds - CONSTRUCTION START	OR221-040										BCV Burial Grounds
BCV Burial Grounds - CONSTRUCTION COMPLETE	OR221-041										BCV Burial Grounds

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Milestones - Part II											
Milestone/Activity	Field Milestone Code	Critical Decision	Critial Closure Path	Project Start	Project End	Mission Complete	Tech Risk	Work Scope Risk	Intersite Risk	Cancelled	Milestone Description
BCV Burial Grounds - SUBMIT DRAFT REMEDIAL ACTION REPORT TO REGS FOR REVIEW	OR221-042										BCV Burial Grounds
BCV White Wing Scrap Yard - SUBMIT DRAFT EE/CA TO REGS FOR REVIEW	OR221-043										BCV White Wing Scrap Yard
BCV White Wing Scrap Yard - SUBMIT DRAFT ACTION MEMORANDUM TO REGS FOR REVIEW	OR221-044										BCV White Wing Scrap Yard
BCV White Wing Scrap Yard - SUBMIT DRAFT REMOVAL ACTION WP TO REGS FOR REVIEW	OR221-045										BCV White Wing Scrap Yard
BCV White Wing Scrap Yard - REMOVAL ACTION CONSTRUCTION START	OR221-046										BCV White Wing Scrap Yard
BCV White Wing Scrap Yard - REMOVAL ACTION CONSTRUCTION COMPLETE	OR221-047										BCV White Wing Scrap Yard
BCV White Wing Scrap Yard - SUBMIT DRAFT REMOVAL ACTION REPORT TO REGS FOR REVIEW	OR221-048										BCV White Wing Scrap Yard
UEFPC Soils Remediation - Phase 1 - SUBMIT DRAFT RDR/RAWP TO REGS FOR REVIEW	OR221-049										UEFPC Soils Remediation - Phase 1
UEFPC Soils Remediation - Phase 1 - CORRECTIVE MEASURES/REMEDIAL ACTION START	OR221-050										UEFPC Soils Remediation - Phase 1

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Milestones - Part II											
Milestone/Activity	Field Milestone Code	Critical Decision	Critial Closure Path	Project Start	Project End	Mission Complete	Tech Risk	Work Scope Risk	Intersite Risk	Cancelled	Milestone Description
UEFPC Soils Remediation - Phase 1 - CORRECTIVE MEASURES/REMEDIAL ACTION COMPLETE	OR221-051										UEFPC Soils Remediation - Phase 1
UEFPC Soils Remediation - Phase 1 - SUBMIT DRAFT REMEDIAL ACTION REPORT TO REGS FOR REVIEW	OR221-052										UEFPC Soils Remediation - Phase 1
UEFPC Soils Remediation - Phase 2 - SUBMIT DRAFT RDR/RAWP TO REGS FOR REVIEW	OR221-053										UEFPC Soils Remediation - Phase 2
UEFPC Soils Remediation - Phase 2 - CORRECTIVE MEASURES/REMEDIAL ACTION START	OR221-054										UEFPC Soils Remediation - Phase 2
UEFPC Soils Remediation - Phase 2 - CORRECTIVE MEASURES/REMEDIAL ACTION COMPLETE	OR221-055										UEFPC Soils Remediation - Phase 2
UEFPC Soils Remediation - Phase 2 - SUBMIT DRAFT REMEDIAL ACTION REPORT TO REGS FOR REVIEW	OR221-056										UEFPC Soils Remediation - Phase 2
UEFPC In-Situ Remediation - SUBMIT DRAFT RDR/RAWP TO REGS FOR REVIEW	OR221-057										UEFPC In-Situ Remediation
UEFPC In-Situ Remediation - SUBMIT DRAFT REMEDIAL ACTION REPORT TO REGS FOR REVIEW	OR221-058										UEFPC In-Situ Remediation
UEFPC Sediments Remediation -	OR221-059										UEFPC Sediments Remediation -

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Project OR-221 / Y-12 Remedial Action

Milestones - Part II											
Milestone/Activity	Field Milestone Code	Critical Decision	Critial Closure Path	Project Start	Project End	Mission Complete	Tech Risk	Work Scope Risk	Intersite Risk	Cancelled	Milestone Description
Phase 1 - SUBMIT DRAFT RDR/RAWP TO REGS FOR REVIEW											Phase 1
UEFPC Sediments Remediation - Phase 1 - CORRECTIVE MEASURES/REMEDIAL ACTION START	OR221-060										UEFPC Sediments Remediation - Phase 1
UEFPC Sediments Remediation - Phase 1 - CORRECTIVE MEASURES/REMEDIAL ACTION COMPLETE	OR221-061										UEFPC Sediments Remediation - Phase 1
UEFPC Sediments Remediation - Phase 1 - SUBMIT DRAFT REMEDIAL ACTION REPORT TO REGS FOR REVIEW	OR221-062										UEFPC Sediments Remediation - Phase 1
UEFPC Sediments Remediation - Phase 2 - SUBMIT DRAFT RDR/RAWP TO REGS FOR REVIEW	OR221-063										UEFPC Sediments Remediation - Phase 2
UEFPC Sediments Remediation - Phase 2 - CORRECTIVE MEASURES/REMEDIAL ACTION START	OR221-064										UEFPC Sediments Remediation - Phase 2
UEFPC Sediments Remediation - Phase 2 - CORRECTIVE MEASURES/REMEDIAL ACTION COMPLETE	OR221-064										UEFPC Sediments Remediation - Phase 2
UEFPC Sediments Remediation - Phase 2 - SUBMIT DRAFT REMEDIAL ACTION REPORT TO REGS FOR REVIEW	OR221-065										UEFPC Sediments Remediation - Phase 2

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Milestones - Part II											
Milestone/Activity	Field Milestone Code	Critical Decision	Critial Closure Path	Project Start	Project End	Mission Complete	Tech Risk	Work Scope Risk	Intersite Risk	Cancelled	Milestone Description
West End Mercury Area Remediation - SUBMIT DRAFT RDR/RAWP TO REGS FOR REVIEW	OR221-066										West End Mercury Area Remediation
West End Mercury Area Remediation - CORRECTIVE MEASURES/REMEDIAL ACTION START	OR221-067										West End Mercury Area Remediation
West End Mercury Area Remediation - CORRECTIVE MEASURES/REMEDIAL ACTION COMPLETE	OR221-068										West End Mercury Area Remediation
West End Mercury Area Remediation - SUBMIT DRAFT REMEDIAL ACTION REPORT TO REGS FOR REVIEW	OR221-069										West End Mercury Area Remediation
Chestnut Ridge Soils Remediation - SUBMIT DRAFT RDR/RAWP TO REGS FOR REVIEW	OR221-070										Chestnut Ridge Soils Remediation
Chestnut Ridge Soils Remediation - CORRECTIVE MEASURES/REMEDIAL ACTION START	OR221-071										Chestnut Ridge Soils Remediation
Chestnut Ridge Soils Remediation - CORRECTIVE MEASURES/REMEDIAL ACTION COMPLETE	OR221-072										Chestnut Ridge Soils Remediation
Chestnut Ridge Soils Remediation - SUBMIT DRAFT REMEDIAL ACTION REPORT TO REGS FOR REVIEW	OR221-073										Chestnut Ridge Soils Remediation

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Milestones - Part II														
Milestone/Activity		Field Milestor Code	ne Critical Decision		Project th Start	Project End	Mission Complete	Tech Risk	Work Scope Risk	Intersite Risk	Cancelled	Milesto	ne Description	o n
BCV DARA/SSF - SUBMIT DRAFT RDR/RAWP TO REG FOR REVIEW		OR221-074										BCV DARA/S	SF	
BCV DARA/SSF - CONSTRUCTION START		OR221-075										BCV DARA/S	SF	
BCV DARA/SSF - CONSTRUCTION COMPLET		OR221-076										BCV DARA/S	SF	
BCV DARA/SSF - SUBMIT DRAFT REMEDIAL ACTION REPORT TO REGS FOR REV	RAFT REMEDIAL ACTION PORT TO REGS FOR REVIEW art Date for the Y-12 Remedial OR221-											BCV DARA/S	SF	
Start Date for the Y-12 Remed Action PBS - PBS START DA	art Date for the Y-12 Remedial OR221-078 tion PBS - PBS START DATE				Y							Start Date for t Action PBS	he Y-12 Rem	edial
End Date for the Y-12 Remedi Action PBS - PBS END DATE	etion PBS - PBS START DATE and Date for the Y-12 Remedial OR221-079					Y						End Date for the Action PBS	ne Y-12 Reme	edial
Y-12 Remedial Action Mission Completion	n	OR221-080					Y							
Performance Measure	Metr	ics												
Category/Subcategory	Units	1997-2006 Total	2007-2070 Total	1997-2070 Total	Actual Pre-1997	Planned 1997	Actual 1997	Planne 199					Planned 2003	Planne 200
RS														
Assess.	NR	101.00	0.00	101.00		3.00	3.00	7.0	0 2.0	00 15.0	0	3.00	10.00	12.0
RS														
Cleanup	NR	89.00	26.00	115.00		2.00	1.00		5.0	00 4.0	0 1.0	2.00	3.00	19.0
Fac.														
Decom Assess.	NF	2.00	0.00	2.00						2.0	0			

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Performance Measur	Performance Measure Metrics													
Category/Subcategory	Units	1997-2006 Total	2007-2070 Total	1997-2070 Total	Actual Pre-1997	Planned 1997	Actual 1997	Planned 1998	Planned 1999	Planned 2000	Planned 1 2001	Planned 2002	Planned 2003	Planne 200
Fac.														
Decom- Cleanup	NF	0.00	0.00	0.00										
Rem. Waste														
Disposed	M3	49,580.00	0.00	49,580.00					428.00	48,018.00	1.00	1,133.00		0.0
Category/Subcategory	Units	Planne 200			Planned 2007	Planned 2008	Planned 2009	Planned 2010	Planned 2011 2011	- 2016 -	2021 -	2020	5 - 203	ned 31 - 035
RS														
Assess.	NR	12.0	0 30.00	19.00										
RS														
Cleanup	NR	19.0	0 33.00	20.00	2.00	3.00	2.00	16.00	3.00	0				
Fac.														
Decom Assess. Fac.	NF													
Decom- Cleanup	NF													
Rem. Waste														
Disposed	M3	0.0	0		0.00									
Category/Subcategory	Units	Plannec 2036 2040	- 2041 -	2046 -	Planned 2051 - 2055	Planned 2056 - 2060	Planned 2061 - 2035	Planned 2066 - 2070	Exceptions	s Lifecycle Total				
RS														
Assess. RS	NR								4.00	117.00				
Cleanup	NR								3.00	117.00				

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Category	y/Subca	tegory	Units	Planned 2036 - 2040	Planned 2041 - 2045	Planned 2046 - 2050	Planned 2051 - 2055	Planned 2056 - 2060	Planned 2061 2035	- 206	6 -	otions I	Lifecycle Total				
Fac.																	
Decon	ı Asses	s.	NF										2.00				
Fac.																	
	- Clean	up	NF									2.00	2.00				
Rem. Wa	aste																
Dispos	ed		M3									4	9,152.00				
Release								Planned	Forecast	Actual	Planned	Forecast	Actual	Acc.			
Site Code	RSF ID	Change Flag	Description			Class/Sul	bclass Name	Assess. Year	Assess. Year	Assess. Date	Comp. Year	Comp. Year	Comp. Date	Year	No Action	Comp. Status	RAD
ORTN	0004		RAIMS Unit # Grounds	923 \ Bear Cro	eek Burial	Waste/La	ndfills				2007	2007			N		Y
ORTN	0005		RAIMS Unit # Area {Boneyar		lous Chemical		round Material torage Yards	1999			2001	2001		1992	N		Y
ORTN	0006		RAIMS Unit #	‡1229 \ Sanitar	y Landfill I	Waste/La	ndfills	1999	1999	8/28/1998	1999	1999		1992	N		Y
ORTN	0007		RAIMS Unit # {Landfill} Gro				ound Material torage Yards	1999	1999	8/28/1998	2005	1999		1992	N		N
ORTN	8000		RAIMS Unit # Construction S	,	ninated		ound Material Debris Piles			8/28/1998	2005	2005		1992	N		Y
ORTN	0009		RAIMS Unit # Containment F		ndfarm Soils	Buildings Equipmen Buildings	nt/Other	1998		8/28/1998	2000		9/10/1999	1992	N		N
ORTN	0010		RAIMS Unit # Facility	‡1156 \ DARA	Solids Storage	Buildings Equipmen Buildings	nt/Other			8/28/1998	2007	2007		1992	N		N
ORTN	0011		RAIMS Unit # Plume) Pathwa	,	nds (Western	Liquid Su Impoundi	nrface ments/Holding	1998	1998	6/25/1998	1999	1999	8/30/1999	1992	N		Y

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Site Code	RSF ID	Change Flag	Description	Class/Subclass Name	Assess. Year	Assess. Year	Assess. Date	Comp. Year	Comp. Year	Actual Comp. Date	Year	No Action	Comp. Status	RAD
				Ponds										
ORTN	0012		RAIMS Unit #1206 \ Oil Retention Pond No. 1	Above Ground Material / Waste/Storage Yards and Pads	1999	1999	8/28/1998	2005	2005			N		N
ORTN	0013		RAIMS Unit #1207 \ Oil Retention Pond No. 2	Above Ground Material / Waste/Storage Yards and Pads	1999	1999	8/28/1998	2005	2005			N		N
ORTN	0014		RAIMS Unit #1204 \ Oil Landfarm	Dispersed Surface Contamination/Land Farms	1999	1999	8/28/1998	2009	1999			N		Y
ORTN	0015		RAIMS Unit #1157 \ Decant Treatment Facility {S-3 Liquid Treatment Facility}	Buildings & Equipment/Other Buildings			8/28/1998	2005	1999		1992	N		N
ORTN	0016		RAIMS Unit #2317 \ Bear Creek Contaminated Floodplain Soils	Surface and Groundwater/Sediments	1998	1998	8/28/1998	2000				N		N
ORTN	0017		RAIMS Unit #924 \ Beta-4 Security Pits	Waste/Landfills	2006	2006		2010	2010			N		N
ORTN	0018		RAIMS Unit #1223 \ S-2 Site Groundwater Plume	Waste/Landfills	2006	2006		2006	2006			N		N
ORTN	0019		RAIMS Unit #1150 \ Coal Pile Trench	Waste/Trenches / Outfalls	2006	2006		2010	2010			N		N
ORTN	0020		RAIMS Unit #1049 \ Building 9418-3 Uranium Vault	Tanks/Underground Storage Tanks	2006	2006		2010	2010			N		N
ORTN	0021		RAIMS Unit #1037 \ Building 9401-1 Old Steam Plant	Buildings & Equipment/Other Buildings	2005	2005		2005	2005		1992	N		N
ORTN	0023		RAIMS Unit #921 \ ACN Drum Yard	Above Ground Material / Waste/Storage Yards and Pads	2005	2005		2005	2005		1992	N		N

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Site Code	RSF ID	Change Flag	Description	Class/Subclass Name	Assess. Year	Assess. Year	Assess. Date	Comp. Year	Comp. Year	Comp. Date	Year	No Action	Comp. Status	RAD
ORTN	0024		RAIMS Unit #1047 \ Building 9409-5 Storage Facility	Tanks/Above Ground Storage Tanks	2005	2005		2005	2005			N		N
ORTN	0025		RAIMS Unit #1226 \ Salvage Yard Oil Storage Tanks	Above Ground Material / Waste/Storage Yards and Pads	2000	2000		2010	2010			N		N
ORTN	0026		RAIMS Unit #1182 \ Garage Underground Tanks	Tanks/Underground Storage Tanks	2004	2004		2005	2005		1992	N		N
ORTN	0027		RAIMS Unit #1227 \ Salvage Yard Oil/Solvent Drum Storage Area Contaminated Soils	Above Ground Material / Waste/Storage Yards and Pads	2000	2000		2010	2010			N		N
ORTN	0028		RAIMS Unit #1209 \ Old Steam Plant Storage Area {Building 9401-1}	Above Ground Material / Waste/Storage Yards and Pads	2005	2005		2005	2005		1992	N		N
ORTN	0029		RAIMS Unit #1185 \ Interim Drum Yard {North/South}	Above Ground Material / Waste/Storage Yards and Pads	2006	2006		2010	2010			N		N
ORTN	0030		RAIMS Unit #1228 \ Salvage Yard Scrap Metal Storage Area and Contaminated Soils	Above Ground Material / Waste/Scrap Yards	2000	2000		2010	2010			N		N
ORTN	0031		RAIMS Unit #1292 \ Third Street Soil Pile	Above Ground Material / Waste/Debris Piles	2006	2006		2006	2006		1992	N		N
ORTN	0032		RAIMS Unit #930 \ Building 81-10 Area {Former Hg Roaster}	Above Ground Material / Waste/Storage Yards and Pads	1998	1998	5/4/1998	1999	1999	10/28/199		N		N
ORTN	0033		RAIMS Unit #1153 \ Cooling Tower Basin 9409-3	Buildings & Equipment/Other Buildings	2005	2005		2005	2005		1992	N		N
ORTN	0034		RAIMS Unit #1145 \ Chestnut Ridge Mercury Contaminated Gully Soil Pile	Above Ground Material / Waste/Debris Piles	2004	2004		2010	2010			N		N
ORTN	0035		RAIMS Unit #1238 \ Tank 0074-U {Building	Above Ground Material	2005	2005		2006	2006		1992	N		N

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Release	Sites				Planned	Forecast	Actual	Planned	Forecast	Actual	Acc.			
Site Code	RSF ID	Change Flag	Description	Class/Subclass Name	Assess. Year	Assess. Year	Assess. Date	Comp. Year	Comp. Year	Comp. Date	Year	No Action	Comp. Status	RAD
			9201-5W}	/ Waste/Storage Yards and Pads										
ORTN	0036		RAIMS Unit #1243 \ Tank 2063-U {Salvage Yard}	Tanks/Underground Storage Tanks	2000	2000		2005	2005			N		N
ORTN	0037		RAIMS Unit #1244 \ Tank 2064-U {Building 9766}	Above Ground Material / Waste/Storage Yards and Pads	2005	2005		2010	2010			N		N
ORTN	0038		RAIMS Unit #1262 \ Tank 2100-U	Liquid Surface Impoundments/Sumps	2006	2006		2006	2006			N	Approved	N
ORTN	0039		RAIMS Unit #1263 \ Tank 2101-U	Liquid Surface Impoundments/Sumps	2006	2006		2006	2006			N	Approved	N
ORTN	0040		RAIMS Unit #1266 \ Tank 2104-U	Liquid Surface Impoundments/Sumps	2006	2006		2006	2006			N	Approved	N
ORTN	0041		RAIMS Unit #1267 \ Tank 2105-U	Tanks/Underground Storage Tanks	2005	2005		2006	2006		1992	N		N
ORTN	0042		RAIMS Unit #1268 \ Tank 2116-U	Tanks/Underground Storage Tanks	2005	2005		2006	2006		1992	N		N
ORTN	0043		RAIMS Unit #1290 \ Tanks and Transfer Station {Building 9204-4}	Above Ground Material / Waste/Storage Yards and Pads	2005	2005		2006	2006		1992	N		N
ORTN	0044		RAIMS Unit #1281 \ Tank {Building 9818}	Above Ground Material / Waste/Storage Yards and Pads	2005	2005		2006	2006		1992	N		N
ORTN	0045		RAIMS Unit #1278 \ Tank {Building 9204-4}	Above Ground Material / Waste/Storage Yards and Pads	2005	2005		2006	2006		1992	N		N
ORTN	0046		RAIMS Unit #1197 \ Laundry Sump	Liquid Surface Impoundments/Holding Ponds	2006	2006		2010	2010			N		N

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Release	Sites				DI	E	A -41	Dlamad	E	A -41	A			
Site Code	RSF ID	Change Flag	Description	Class/Subclass Name	Planned Assess. Year	Forecast Assess. Year	Actual Assess. Date	Planned Comp. Year	Forecast Comp. Year	Actual Comp. Date	Acc. Year	No Action	Comp. Status	RAD
ORTN	0047		RAIMS Unit #1003 \ Building 9206 Underground Tank	Tanks/Underground Storage Tanks	2003	2003		2004	2004		1992	N		N
ORTN	0048		RAIMS Unit #954 \ Building 9201-5E Northeast Yard Waste Storage Area	Above Ground Material / Waste/Storage Yards and Pads	2003	2003		2004	2004		1992	N		N
ORTN	0049		RAIMS Unit #967 \ Building 9202 East Pad Waste Storage Area	Above Ground Material / Waste/Storage Yards and Pads	2003	2003		2004	2004		1992	N		N
ORTN	0050		RAIMS Unit #983 \ Building 9204-2 West Yard Waste Storage Area	Above Ground Material / Waste/Storage Yards and Pads	2003	2003		2004	2004		1992	N		N
ORTN	0051		RAIMS Unit #1024 \ Building 9215 West Pad Waste Storage Area	Above Ground Material / Waste/Storage Yards and Pads	2003	2003		2004	2004		1992	N		N
ORTN	0053		RAIMS Unit #1041 \ Building 9401-3 East Yard Waste Storage Area	Above Ground Material / Waste/Storage Yards and Pads	2003	2003		2004	2004		1992	N		N
ORTN	0054		RAIMS Unit #1042 \ Building 9404-11 West Yard Waste Storage Area	Above Ground Material / Waste/Storage Yards and Pads	2003	2003		2004	2004		1992	N		N
ORTN	0055		RAIMS Unit #1060 \ Building 9620-2 West Yard Waste Storage Area	Above Ground Material / Waste/Storage Yards and Pads	2003	2003		2004	2004		1992	N		N
ORTN	0056		RAIMS Unit #1067 \ Building 9712 NE Yard Waste Storage Area	Above Ground Material / Waste/Storage Yards and Pads	2006	2006		2010	2010			N		N
ORTN	0057		RAIMS Unit #1084 \ Building 9720-3 North Yard Waste Storage Area	Above Ground Material / Waste/Storage Yards and Pads	2003	2003		2004	2004		1992	N		N
ORTN	0058		RAIMS Unit #1089 \ Building 9720-6 North	Above Ground Material	2005	2005		2010	2010			N		N

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Release	Sites				Planned	Forecast	Actual	Planned	Forecast	Actual	Acc.			
Site Code	RSF ID	Change Flag	Description	Class/Subclass Name	Assess. Year	Assess. Year	Actual Assess. Date	Comp. Year	Comp. Year	Comp. Date	Year	No Action	Comp. Status	RAD
			Polytank Station	/ Waste/Storage Yards and Pads										
ORTN	0059		RAIMS Unit #1073 \ Building 9720-13 West Yard Waste Storage Area	Above Ground Material / Waste/Storage Yards and Pads	2003	2003		2004	2004		1992	N		N
ORTN	0060		RAIMS Unit #1104 \ Building 9744 North Dock Waste Storage Area	Above Ground Material / Waste/Storage Yards and Pads	2004	2004		2004	2004		1992	N		N
ORTN	0063		RAIMS Unit #1219 \ Rust Construction Garage Area	Above Ground Material / Waste/Storage Yards and Pads	2006	2006		2006	2006			N		N
ORTN	0064		RAIMS Unit #1253 \ Tank 2077-U	Tanks/Underground Storage Tanks	2005	2005		2006	2006		1992	N		N
ORTN	0065		RAIMS Unit #1258 \ Tank 2089-U	Tanks/Underground Storage Tanks	2005	2005		2006	2006		1992	N		N
ORTN	0066		RAIMS Unit #1259 \ Tank 2090-U	Tanks/Underground Storage Tanks	2005	2005		2006	2006		1992	N		N
ORTN	0067		RAIMS Unit #1260 \ Tank 2091-U	Tanks/Underground Storage Tanks	2005	2005		2006	2006		1992	N		N
ORTN	0068		RAIMS Unit #1261 \ Tank 2092-U	Tanks/Underground Storage Tanks	2005	2005		2006	2006		1992	N		N
ORTN	0069		RAIMS Unit #1270 \ Tank 2284-U	Tanks/Underground Storage Tanks	2005	2005		2006	2006		1992	N		N
ORTN	0071		RAIMS Unit #1294 \ Upper East Fork Poplar Creek (UEFPC) Sediments	Surface and Groundwater/Surface Water	2006	2006		2013	2013			N		N
ORTN	0072		RAIMS Unit #1214 \ Prenco Incinerator	Miscellaneous/Other	2004	2004		2005	2005		1992	N		N
ORTN	0073		RAIMS Unit #1299 \ Waste Machine Coolant Biodegradation Facility Groundwater Plume	Liquid Surface Impoundments/Leach	2006	2006		2010	2010			N		N

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Release	Sites				DI I	T	4.4.1	DI 1	E	A .4 .1	A			
Site Code	RSF ID	Change Flag	Description	Class/Subclass Name	Planned Assess. Year	Forecast Assess. Year	Actual Assess. Date	Planned Comp. Year	Forecast Comp. Year	Actual Comp. Date	Acc. Year	No Action	Comp. Status	RAD
				Fields										
ORTN	0074		RAIMS Unit #1202 \ New Hope Pond	Liquid Surface Impoundments/Holding Ponds	2006	2006		2006	2006		1992	N		N
ORTN	0075		RAIMS Unit #1217 \ Ravine Disposal Site	Waste/Landfills	2005	2005		2005	2005		1992	N		N
ORTN	0076		RAIMS Unit #1225 \ Salvage Yard Drum Deheader Contaminated Soils	Spills and Leaks/Surface Spills	2000	2000		2005	2005			N		N
ORTN	0077		RAIMS Unit #1158 \ Development Incinerator	Miscellaneous/Other	2005	2005		2005	2005		1992	N		N
ORTN	0078		RAIMS Unit #1218 \ Roofing Waste Pile {former}	Above Ground Material / Waste/Storage Yards and Pads	2005	2005		2005	2005		1992	N		N
ORTN	0079		RAIMS Unit #1201 \ Mercury Contaminated Areas	Above Ground Material / Waste/Storage Yards and Pads	2000	2000		2010	2010			N		N
ORTN	0080		RAIMS Unit #1146 \setminus Chestnut Ridge Security Pits	Waste/Pits	2004	2004		2004	2004			N		N
ORTN	0081		RAIMS Unit #1147 \ Chestnut Ridge Sediment Disposal Basin	Waste/Landfills	2004	2004		2004	2004			N		N
ORTN	0084		RAIMS Unit #21 \ Rogers Quarry {Lower McCoy Branch}	Above Ground Material / Waste/Storage Yards and Pads	2004	2004		2004	2004			N		N
ORTN	0085		RAIMS Unit #1144 \ Chestnut Ridge Borrow Area Waste Pile	Waste/Landfills	2004	2004		2004	2004		1992	N		N
ORTN	0086		RAIMS Unit #1180 \ East Chestnut Ridge Waste Pile	Above Ground Material / Waste/Debris Piles	2004	2004		2008	2008			N		N
ORTN	0087		RAIMS Unit #1291 \ Temporary Storage Area	Above Ground Material / Waste/Storage Yards and Pads	2004	2004		2008	2008		1992	N		N

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Release	Sites				Dlamad	E	ast Actual	DI	E	Actual	Acc.			
Site Code	RSF ID	Change Flag	Description	Class/Subclass Name	Planned Assess. Year	Forecast Assess. Year	Assess. Date	Planned Comp. Year	Forecast Comp. Year	Comp. Date	Year	No Action	Comp. Status	RAD
ORTN	0090		RAIMS Unit #1231 \ Scarboro Road Debris Burial	Above Ground Material / Waste/Debris Piles	2005	2005		2005	2005		1995	N		N
ORTN	0091		RAIMS Unit #904 \ Clinch River/Poplar Creek	Surface and Groundwater/Surface Water	1997	1997	4/8/1997	1997	1997	10/17/199 7		N	Pending	Y
ORTN	0127	R	RAIMS Unit #2327 \ Salvage Yard Oil/Solvent Drum Storage Area [East & West]	Above Ground Material / Waste/Debris Piles	2000	2000						N		N
ORTN	0131	R	RAIMS Unit #2328 \ Salvage Yard Scrap Metal Storage Area	Above Ground Material / Waste/Debris Piles	2000	2000						N		N
ORTN	0498		RAIMS Unit #897 \ White Wing Scrap Yard (XDO751)	Waste/Miscellaneous Surface Debris	2004	2004	8/28/1998	2009	2009		1989	N		N
ORTN	0553		RAIMS Unit #706 \ Municipal Sewage Sludge Application Site (XF1226)	Dispersed Surface Contamination/Land Farms	2005	2005		2005	2005		1989	N	Approved	N
ORTN	0632		RAIMS Unit #22 \ Lower McCoy Branch Surface Water and Sediments	Liquid Surface Impoundments/Holding Ponds	2004	2004		2004	2004			N		N
ORTN	0633		RAIMS Unit #938 \ Building 9201-2 Transformer and Capacitor Storage Area	Above Ground Material / Waste/Storage Yards and Pads	2005	2005		2005	2005		1992	N		N
ORTN	0636		RAIMS Unit #1211 \ Polytank Station {Building 9206}	Above Ground Material / Waste/Storage Yards and Pads	2005	2005		2005	2005		1992	N		N
ORTN	0637		RAIMS Unit #24 \ S-3 Ponds (Eastern Plume)	Liquid Surface Impoundments/Holding Ponds	2006	2006		2006	2006			N		N
ORTN	0639		RAIMS Unit #1627 \ Arboretum Spring	Above Ground Material / Waste/Storage Yards and Pads	2004	2004		2008	2008			N		N

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Project OR-221 / Y-12 Remedial Action

Release	Sites				Planned	Forecast	Actual	Planned	Forecast	Actual	Acc.			
Site Code	RSF ID	Change Flag	Description	Class/Subclass Name	Assess. Year	Assess. Year	Assess. Date	Comp. Year	Comp. Year	Comp. Date	Year	No Action	Comp. Status	RAD
ORTN	0641		RAIMS Unit #15 \ Bear Creek Burial Grounds Groundwater Plume	Surface and Groundwater/Groundwa ter Plumes	1999	1999	8/28/1998	2005	2005			N		N
ORTN	0643		RAIMS Unit #17 \ Bear Creek Groundwater	Surface and Groundwater/Groundwa ter Plumes	1999	1999	8/28/1998	2005	2005			N		N
ORTN	0644		RAIMS Unit #1633 \ Building 9212 Groundwater Plume	Surface and Groundwater/Groundwa ter Plumes	2000	2000		2010	2010			N		N
ORTN	0645		RAIMS Unit #1333 \ Bear Creek Road Debris Burial	Waste/Landfills	1998	1998	8/28/1998	2000	1999			N		Y
ORTN	0646		RAIMS Unit #1634 \ Fire Training Area Groundwater Plume	Waste/Fire Training Areas	2006	2006		2010	2010			N		N
ORTN	0647		RAIMS Unit #18 \ Bear Creek Tributary 3 Floodplain Soils	Surface and Groundwater/Sediments	1999	1999	8/28/1998	2000				N		N
ORTN	0648		RAIMS Unit #1630 \ Mercury-use Buildings Contaminated Shallow Groundwater	Surface and Groundwater/Groundwa ter Plumes	2000	2000		2005	2005			N		N
ORTN	0649		RAIMS Unit #1332 \ Creekside Debris Burial	Waste/Landfills	1998	1998	8/28/1998	2000	1999			N		Y
ORTN	0650		RAIMS Unit #1635 \ Storm Sewer Contaminated Sediments	Surface and Groundwater/Sediments	2000	2000		2005	2005			N		N
ORTN	0652		RAIMS Unit #1527 \ UEFPC East End VOC Plumes	Surface and Groundwater/Groundwa ter Plumes	1999	1999	6/15/1999	2002	2000			N		N
ORTN	0717		RAIMS Unit #1551 \ East Chestnut Ridge Study Area (#20)	Miscellaneous/Other	2005	2005		2005	2005			N		N
ORTN	0718		RAIMS Unit #1496 \ Scarboro Facility Study Area (#17)	Miscellaneous/Other	2005	2005		2005	2005			N		N

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Project OR-221 / Y-12 Remedial Action

Release	Sites				Planned	Forecast	Actual	Planned	Forecast	Actual	Acc.			
Site Code	RSF ID	Change Flag	Description	Class/Subclass Name	Assess. Year	Assess. Year	Assess. Date	Comp. Year	Comp. Year	Comp. Date	Year	No Action	Comp. Status	RAD
ORTN	0901		RAIMS Unit #1478 \ Scarboro/East Haw Ridge Study Area (#16)	Miscellaneous/Other	1997		9/1/1997	1997		9/1/1997		N		N
ORTN	1131		RAIMS Unit #1526 \ UEFPC Firing Range	Above Ground Material / Waste/Debris Piles	1997	1997	8/30/1997	1999	1999	10/28/199		N		N
ORTN	1133		RAIMS Unit #1543\Bear Creek Floodplain	Above Ground Material / Waste/Debris Piles	2002	2002		2004	2004			N		N
ORTN	2001		RAIMS Unit #2340 \ Building 81-10 Area {Former Hg Roaster} Contaminated Soils	Above Ground Material / Waste/Debris Piles	2000	2000		2005	2005			N		N
ORTN	2024		RAIMS Unit #2329 \ Rust Spoil Area {Landfill}	Above Ground Material / Waste/Debris Piles			8/28/1998		1999			N		N
ORTN	2025		RAIMS Unit #2440 \ S-3 Ponds (Western Plume) Pathway 3	Above Ground Material / Waste/Debris Piles	1998		8/23/1998	2002	2002			N		N
ORTN	2026		RAIMS Unit #2339 \ Salvage Yard Drum Deheader	Above Ground Material / Waste/Debris Piles	2000	2000		2005	2005			N		N
ORTN	2027		RAIMS Unit #2305 \ Salvage Yard Oil Storage Tanks Contaminated Soils	Surface and Groundwater/Sediments	2000	2000		2005	2005			N		N
ORTN	3002		RAIMS Unit #2485 \ Building 9201-2 Contaminated Soils	Above Ground Material / Waste/Debris Piles	2000	2000		2003	2003			N		N
ORTN	3003		RAIMS Unit #2483 \ Lake Reality Contaminated Sediments	Surface and Groundwater/Sediments	2006	2006		2013	2013			N		N
ORTN	3004		RAIMS Unit #1198 \ Line Yard Contaminated Soils	Above Ground Material / Waste/Debris Piles	2000	2000		2003	2003			N		N
ORTN	3005		RAIMS Unit #2330 \ S-2 Site (Surface Impoundment)	Above Ground Material / Waste/Debris Piles	2006	2006		2011	2011			N		N
ORTN	3006		RAIMS Unit #2481 \ UEFPC Sediment NS Pipe to OF109	Above Ground Material / Waste/Debris Piles	2000	2000		2005	2005			N		N
ORTN	3007		RAIMS Unit #1304 \ Y-12 Plant Pistol Range	Above Ground Material / Waste/Debris Piles	1997			1999				N		N

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Project OR-221 / Y-12 Remedial Action

Release	Sites				Planned	Forecast	Actual	Planned	Forecast	Actual	Acc.			
Site Code	RSF ID	Change Flag	Description	Class/Subclass Name	Assess. Year	Assess. Year	Assess. Date	Comp. Year	Comp. Year	Comp. Date	Year	No Action	Comp. Status	RAD
ORTN	3008		RAIMS Unit #1552 \ Y-12 Water Treatment Plant Study Area (#4c)	Above Ground Material / Waste/Debris Piles	2005	2005		2005	2005			N		N
ORTN	3009		RAIMS Unit #1558 \ East Fork Ridge Knob	Above Ground Material / Waste/Debris Piles	2005	2005		2005	2005			N		N
ORTN	3010		RAIMS Unit #23 \ S-3 Ponds	Above Ground Material / Waste/Debris Piles	1998			2003	2003			N		N
ORTN	3011		RAIMS Unit #1554 \setminus White Wing Scrap Yard East Creek	Above Ground Material / Waste/Debris Piles	2002	2002		2004	2006			N		N
ORTN	3012		RAIMS Unit #1555 \ White Wing Scrap Yard West Creek	Above Ground Material / Waste/Debris Piles	2002	2002		2004	2004			N		N

Facility Decommissioning

Site Code	RSF ID	Change Flag	e Description	Class/Subclass	Hazard	Plan. Assess. Year	Fore. Assess. Year	Actual Assess. Date	Plan. Deac. Year	Fore. Deac. Year	Actual Deac. Date	Plan. Comp. Year	Fore. Comp. Year	Actual Comp. Date	Acc. Year	No Action	Comp. Status	
ORTN	2028		RAIMS Unit #2327 \ Salvage Yard Oil/Solvent Drum Storage Area [East & West]	Above Ground Material / Waste\Debris Piles		2000	2000									N		N
ORTN	2029		RAIMS Unit #2328 \ Salvage Yard Scrap Metal Storage Area	Above Ground Material / Waste\Debris Piles		2000	2000									N		N

Technology Needs

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Project OR-221 / Y-12 Remedial Action

Technology Needs

Site Need Code: ORHG-03

Site Need Name: Nondestructive Mercury Detector for Soils

Focus Area Work Package ID: Focus Area Work Package:

Focus Area: Agree with Technology Link: Y

Benefits (Cost, Risk Reduction, Both): Cost

<u>Technologies</u> <u>Cost Savings (in thousands of dollars)</u> <u>Range of Estimate</u>

Site Need Code: ORHG-04

Site Need Name: In Situ Mercury Remediation of Soils

Focus Area Work Package ID: Focus Area Work Package:

Focus Area: Agree with Technology Link: Y

Benefits (Cost, Risk Reduction, Both): Both

Technologies Cost Savings (in thousands of dollars) Range of Estimate

Site Need Code: ORHG-15

Site Need Name: Mercury Remediation of Groundwater and Surface Water

Focus Area Work Package ID: Focus Area Work Package:

Focus Area: Agree with Technology Link: Y

Benefits (Cost, Risk Reduction, Both): Both

Technologies Cost Savings (in thousands of dollars) Range of Estimate

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Project OR-221 / Y-12 Remedial Action

Technology Needs

Site Need Code: ORHY-05

Site Need Name: Karst Characterization and Transport

Focus Area Work Package ID: SS-01 Focus Area Work Package: Characterization, Monitoring, Modeling and Analysis

Focus Area: SCFA Agree with Technology Link: Y

Benefits (Cost, Risk Reduction, Both): Cost

 Technologies
 Cost Savings (in thousands of dollars)
 Range of Estimate

 Electrical Resistance Tomography for Subsurface Imaging
 0

 Three Dimensional Three-Component Seismic Imaging for Site Characterization
 0

 Characterization of Flow and Contaminant Transport in Fractured Rock
 0

Site Need Code: ORHY-06

Site Need Name: Fractured Media Flow Characterization

Focus Area Work Package ID: SS-01 Focus Area Work Package: Characterization, Monitoring, Modeling and Analysis

Focus Area: SCFA Agree with Technology Link: Y

Benefits (Cost, Risk Reduction, Both): Cost

<u>Technologies</u>	Cost Savings (in thousands of dollars)	Range of Estimate
Electrical Resistance Tomography for Subsurface Imaging	0	
Three Dimensional Three-Component Seismic Imaging for Site Characterization	0	
Characterization of Flow and Contaminant Transport in Fractured Rock	0	
Cross Borehole Electromagnetic Imaging	0	
Cross-Well Seismic Imaging	0	

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Project OR-221 / Y-12 Remedial Action

Technology Needs

Site Need Code: ORBW-01

Site Need Name: Buried Waste In Situ Treatment

Focus Area Work Package ID: SS-03 Focus Area Work Package: Stabilization Technologies

Focus Area: SCFA Agree with Technology Link: Y

Benefits (Cost, Risk Reduction, Both): Both

Technologies Cost Savings (in thousands of dollars) Range of Estimate

In Situ Vitrification Bottoms-up

Site Need Code: ORBW-03

Site Need Name: In Situ Assay Systems

Focus Area Work Package ID: SS-01 Focus Area Work Package: Characterization, Monitoring, Modeling and Analysis

Focus Area: SCFA Agree with Technology Link: Y

Benefits (Cost, Risk Reduction, Both): Cost

Technologies Cost Savings (in thousands of dollars) Range of Estimate

Electrical Resistance Tomography for Subsurface Imaging

Site Need Code: ORBW-04

Site Need Name: Subsurface Barriers and Drains

Focus Area Work Package ID: SS-02 Focus Area Work Package: Barriers for Containmant and Control

Focus Area: SCFA Agree with Technology Link: Y

Benefits (Cost, Risk Reduction, Both): Both

<u>Technologies</u> <u>Cost Savings (in thousands of dollars)</u> <u>Range of Estimate</u>

Subsurface Barrier Emplacement

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Project OR-221 / Y-12 Remedial Action

Technology Needs

Continuous Perimeter Containment Barrier System

Site Need Code: ORBW-08

Site Need Name: Long-Term Performance Assessments

Focus Area Work Package ID: SS-11 Focus Area Work Package: Validation, Verification, & Long-Term Monitoring of Containment & Treatment

Focus Area: SCFA Agree with Technology Link: Y

Benefits (Cost, Risk Reduction, Both): Both

Technologies Cost Savings (in thousands of dollars) Range of Estimate

Subsurface Barrier Validation with the SEAtrace (TM) Monitoring System

Verification and Monitor System for Subsurface Barrier

Site Need Code: ORBW-12

Site Need Name: Reactive/Explosive Waste Methods

Focus Area Work Package ID: Focus Area Work Package:

Focus Area: Agree with Technology Link: Y

Benefits (Cost, Risk Reduction, Both): Both

Technologies Cost Savings (in thousands of dollars) Range of Estimate

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Project OR-221 / Y-12 Remedial Action

Technology Needs

Site Need Code: ORBW-13

Site Need Name: Hot Spot Retrieval

Focus Area Work Package ID: SS-10 Focus Area Work Package: Hot Spot Removal

Focus Area: SCFA Agree with Technology Link: Y

Benefits (Cost, Risk Reduction, Both): Both

<u>Technologies</u> <u>Cost Savings (in thousands of dollars)</u> <u>Range of Estimate</u>

Dig Face Characterization

Delineating Contamination in Soils 0

Site Need Code: ORBW-14

Site Need Name: Retrieved Waste Sorting

Focus Area Work Package ID: Focus Area Work Package:

Focus Area: Agree with Technology Link: Y

Benefits (Cost, Risk Reduction, Both): Both

Technologies Cost Savings (in thousands of dollars) Range of Estimate

Site Need Code: ORBW-19

Site Need Name: Remediation of Secondary Soil Contamination

Focus Area Work Package ID: SS-07 Focus Area Work Package: Vadose Zone Treatment Systems

Focus Area: SCFA Agree with Technology Link: N

Benefits (Cost, Risk Reduction, Both): Both

Technologies Cost Savings (in thousands of dollars) Range of Estimate

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Project OR-221 / Y-12 Remedial Action

Technology Needs

Remediation of DNAPLs in Low Permeability Soils 0 In Situ Chemical Oxidation Using Potassium Permanganate 0 Innovative DNAPL Characterization Technologies Continuous Perimeter Containment Barrier System Delineating Contamination in Soils 0

Site Need Code: ORHY-01

Site Need Name: Dense Non-Aqueous Phase Liquid (DNAPL)Source Characterization

Focus Area Work Package ID: Focus Area Work Package: Vadose Zone Treatment Systems

Focus Area: SCFA Agree with Technology Link:

Benefits (Cost, Risk Reduction, Both): Both

Technologies Cost Savings (in thousands of dollars) Range of Estimate

Subsurface Barrier Emplacement 0 Subsurface Barrier Emplacement 0 Innovative DNAPL Characterization Technologies Continuous Perimeter Containment Barrier System

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Project OR-221 / Y-12 Remedial Action

Technology Needs

Site Need Code: ORHY-02

Site Need Name: Low-Waste Volume Exploration and Monitoring

Focus Area Work Package ID: SS-02 Focus Area Work Package: Barriers for Containmant and Control

Focus Area: SCFA Agree with Technology Link: N

Benefits (Cost, Risk Reduction, Both): Cost

<u>Technologies</u> <u>Cost Savings (in thousands of dollars)</u> <u>Range of Estimate</u>

Direct Sampling Ion Trap Mass Spectrometer System (DSITMS) 0

Directional Drilling 0

Site Need Code: ORHY-04

Site Need Name: Volatile Organic Compound (VOC) Monitoring and Detection

Focus Area Work Package ID: SS-01 Focus Area Work Package: Characterization, Monitoring, Modeling and Analysis

Focus Area: SCFA Agree with Technology Link: Y

Benefits (Cost, Risk Reduction, Both): Cost

Technologies Cost Savings (in thousands of dollars) Range of Estimate

Direct Sampling Ion Trap Mass Spectrometer System (DSITMS)

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Project OR-221 / Y-12 Remedial Action

Technology Needs

Site Need Code: ORHY-11

Site Need Name: Horizontal Emplacement Technologies

Focus Area Work Package ID: SS-09 Focus Area Work Package: Access and Delivery Systems

Focus Area: SCFA Agree with Technology Link: Y

Benefits (Cost, Risk Reduction, Both): Cost

<u>Technologies</u> <u>Cost Savings (in thousands of dollars)</u> <u>Range of Estimate</u>

Directional Drilling 0

Site Need Code: ORHY-12

Site Need Name: Active In Situ Dissolved Phase Treatment Systems

Focus Area Work Package ID: SS-08 Focus Area Work Package: Saturated Zone Treatment Systems

Focus Area: SCFA Agree with Technology Link: Y

Benefits (Cost, Risk Reduction, Both): Both

Technologies Cost Savings (in thousands of dollars) Range of Estimate

Dynamic Underground Stripping

Subsurface Barrier Emplacement 0

Passive Reactive Barrier

Hydrous Pyrolysis/Oxidation

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Technology Needs

Site Need Code: ORHY-13

Site Need Name: Reactive Barrier Treatment Systems

Focus Area Work Package ID: SS-05 Focus Area Work Package: In Situ Reactive Treatment Barriers

Focus Area: SCFA Agree with Technology Link: Y

Benefits (Cost, Risk Reduction, Both): Both

Technologies Cost Savings (in thousands of dollars) Range of Estimate

Subsurface Barrier Emplacement

Passive Reactive Barrier

Site Need Code: ORHY-16

Site Need Name: Hydrologic Containment and Control

Focus Area Work Package ID: SS-04 Focus Area Work Package: Long-Lived Caps

Focus Area: SCFA Agree with Technology Link: Y

Benefits (Cost, Risk Reduction, Both): Both

Technologies Cost Savings (in thousands of dollars) Range of Estimate

Alternative Landfill Cover 0
Subsurface Barrier Emplacement 0

Continuous Perimeter Containment Barrier System 0

Verification and Monitor System for Subsurface Barrier

Long-Term Surface Barriers

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HQ ID: 0090 Site Summary Level: Oak Ridge Reservation

Project OR-221 / Y-12 Remedial Action

Technology Needs

Site Need Code: ORHY-19

Site Need Name: Dense Non-Aqueous Phase Liquid (DNAPL) Source Containment

Focus Area Work Package ID: SS-02 Focus Area Work Package: Barriers for Containmant and Control

Focus Area: SCFA Agree with Technology Link: Y

Benefits (Cost, Risk Reduction, Both): Cost

Cost Savings (in thousands of dollars) Range of Estimate **Technologies** Subsurface Barrier Emplacement 0

Continuous Perimeter Containment Barrier System 0 0

Cement Bentonite Thin Diaphragm Wall

Site Need Code: ORHY-20

Site Need Name: Dense Non-Aqueous Phase Liquid (DNAPL) Source Treatment

Focus Area Work Package ID: SS-09 Focus Area Work Package: Access and Delivery Systems

Focus Area: SCFA Agree with Technology Link: Y

Benefits (Cost, Risk Reduction, Both): Cost

Technologies Cost Savings (in thousands of dollars) Range of Estimate

Subsurface Barrier Emplacement Subsurface Barrier Emplacement 0 Passive Reactive Barrier In Situ Chemical Oxidation Using Potassium Permanganate

Bioremediation of Groundwater

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